

WHAT IS CLAIMED IS:

1                   1. A thin-film magnetic head comprising:  
2                   magnetic layers each containing two or more elements of Co, Ni, and Fe;  
3                   wherein said magnetic layers are plated films, and a magnetic layer, of said  
4                   magnetic layers, which is disposed near a magnetic gap is a plated magnetic film containing Co,  
5                   Ni, and Fe, with  $20 \leq \text{Co} \leq 40 \text{ wt\%}$ ,  $0 < \text{Ni} \leq 2 \text{ wt\%}$ , and  $60 \leq \text{Fe} \leq 80 \text{ wt\%}$ , and having a  
6                   saturation magnetic flux density of 23,000 gauss or more.

1                   2. A process for production of a thin-film magnetic head with magnetic layers  
2                   each containing two or more elements of Co, Ni, and Fe,  
3                   wherein said magnetic layers are formed by electroplating in a plating bath having  
4                   a pH value of 2 or less, and  
5                   a magnetic layer, of said magnetic layers, which is disposed near a magnetic gap  
6                   is a plated magnetic film containing Co, Ni, and Fe, with  $20 \leq \text{Co} \leq 40 \text{ wt\%}$ ,  $0 < \text{Ni} \leq 2 \text{ wt\%}$ ,  
7                   and  $60 \leq \text{Fe} \leq 80 \text{ wt\%}$ , and having a saturation magnetic flux density of 23,000 gauss or more.

1                   3. A process as in 2, wherein the magnetic layers are formed in a plating bath  
2                   containing saccharin sodium as a stress relaxing agent.

1                   4. A process for production of a thin-film magnetic head as defined in claim 3,  
2                   wherein the plating bath contains saccharin sodium in an amount of 0.5-2 g/L.

1                   5. A thin-film magnetic head of write-read separate type in which a read element  
2                   is a magneto-resistive effect element and a write element is an inductive magnetic head,  
3                   wherein upper and lower magnetic cores of a write head partly or entirely have  
4                   magnetic layers consisting of magnetic films each containing two or more elements of Co, Ni,  
5                   and Fe, the magnetic films are plated films, a magnetic layer, of the magnetic layers, which is  
6                   disposed near a magnetic gap is composed of a plated magnetic film containing CoNiFe, with  $20$   
7                    $\leq \text{Co} \leq 40 \text{ wt\%}$ ,  $0 < \text{Ni} \leq 2 \text{ wt\%}$ , and  $60 \leq \text{Fe} \leq 80 \text{ wt\%}$ , and having a saturation magnetic  
8                   flux density of 23,000 gauss or more, and the plated magnetic film is a soft magnetic thin film  
9                   formed by electroplating in a plating bath having a pH value of 2 or less.